A STUDY ON PANDEMIC MANAGEMENT POLICIES AND PRACTICES WITH SPECIFIC REFERENCE TO COVID-19 IN AGRA DISTRICT OF UTTAR PRADESH

Synopsis

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1. Introduction

During the recent epidemic of pneumonia in January 2020, the severe acute respiratory syndrome coronavirus 2 (SARSCoV-2), which is the seventh human coronavirus, was found in Wuhan, which is located in the province of Hubei, China (Ciotti et al., 2020). Since then, the virus has disseminated throughout the entire planet; as of the 20th of May in the year 2020, it has infected 4,806,299 people and has been responsible for the deaths of 318,599. There is a death rate of 2.9%, 9.6%, and 36%, respectively, associated with severe pneumonia brought on by SARS-CoV-2, as well as SARS-CoV, and the Middle East respiratory syndrome coronavirus (MERS-CoV). In most cases, sickness caused by the remaining four human coronaviruses, OC43, NL63, HKU1, and 229E, is self-limiting and characterised by minor symptoms (Ciotti et al., 2020).

Since the second week of March 2020, the pandemic disease known as Covid -19 has been rapidly spreading throughout India. The city of Wuhan in China is where researchers believe this virus first appeared in the final week of December 2019. Cold, cough, sore throat, and difficulty breathing are some of the symptoms associated with this disease. It causes damage to the respiratory system, which ultimately results in death. People with preexisting conditions such as diabetes, hypertension, kidney problems, and immune system abnormalities, as well as the elderly population that is over the age of 60 and small children, are thought to be more susceptible to contracting this virus.

Management of Covid-19 during the last years has been a central point of discussion in every nation and the world at large.

1.1. Background of the Study

The severe acute respiratory syndrome coronavirus 2 is the infectious agent that causes the 2019 coronavirus disease outbreak (also known as COVID-19) (SARS-CoV-2). The first case was discovered in December of 2019 in Wuhan, China, and it has since led to a pandemic that is still active. It's possible that the first incidence dates back to November 17th of this year. As of the 8th of June in the year 2020, there have been over 6.98 million cases reported throughout 188 countries and territories, resulting in over 401,000 deaths. In excess of 3.13 million patients have made a full recovery. The virus is most commonly transmitted from person to person through close contact, and it does so mostly through the minute droplets that are created when people cough, sneeze, and talk.

Instead of floating through the air and covering great distances, the droplets more often than not fall to the ground or land on objects. People have a slightly increased risk of becoming sick if they touch a contaminated surface and then proceed to touch their face. Although it is possible for it to spread before symptoms arise as well as from persons who do not display symptoms, the period of time during which it is most contagious is the first three days after the onset of symptoms. India has also witnessed enormous destruction of life and property due to the pandemic.

To put a stop to the further spread of the virus, a concerted effort on a worldwide scale is required. "Occurring over a vast geographic area and impacting an abnormally high proportion of the population" is how the term "pandemic" is typically written out.

The Central Government of India has made three vaccinations against COVID-19 available to the people of India as of the year 2021. These vaccines are known as Covishield, Covaxin, and Sputnik V. These vaccines are made available to the people of India by the Central Government of India. Although the most of them are quite efficient against the COVID-19 sickness, none of them can completely protect you from being infected with COVID-19. It was discovered in some places that they are capable of mutating into other forms and having a more severe impact on the human body. On the other hand, there is a significant amount of current research as well as clinical trials looking at potential therapies and a cure (Buss, 2022). Opportunity in the sense of expanding medical facilities as well as innovating for the peoples and society so that during the lockdown and social distancing protocols how the people utilise their time, money, and efforts in order to get through a difficult time from the perspective of the government. In the case of private peoples, they need to learn how to create the product for the end-user by following the guidelines set forth by the government, in addition to learning how to sell that product at the doorstep of clients so that both parties will be safe and will gain from the transaction. Schools and colleges need to figure out how to teach students in a digital setting so that the students and the institutions can remain unharmed (Buss, 2022). People need to figure out how to broaden their social connections without negatively hurting others around them (Woolliscroft, 2020).

1.2. Covid-19

In 2019, the unique human coronavirus disease 2019 (COVID-19) was initially identified in Wuhan,

China. Since then, it has spread all over the world, becoming the fifth documented pandemic since the influenza pandemic in 1918.

By September 2021, over two years after COVID-19 was initially discovered, there were more than 200 million confirmed cases of the disease, and it was responsible for the deaths of over 4.6 million people. The first instance that was reported, as well as people's first reactions to COVID-19 when the World Health Organization (WHO) was told of cases of pneumonia in Wuhan, China, that had no known aetiology on December 31, 2019, the first official cases of COVID-19 were recorded. These cases were reported to the WHO by local health officials. The Chinese officials determined on January 7 that a novel coronavirus, which they have provisionally dubbed 2019-nCoV, was the culprit behind all of these cases (Woolliscroft, 2020).

After several weeks have passed, on the 30th of January 2020, the World Health Organization (WHO) declared the rapidly expanding COVID-19 epidemic to be a Public Health Emergency of International Concern. The novel coronavirus was not given its official name until the 11th of the following month, which was COVID-19. This occurred in the following month, which was January. After nine days, the Centers for Disease Control and Prevention (CDC) in the United States confirmed the death of the first individual in the country to be affected by COVID-19 (Buss, 2022). The person in question was a male who resided in the state of Washington and was in his fifties.

1.3. The competition to create a preventative vaccine

In order to combat the epidemic, stringent precautions have been taken in every region of the planet. March was the month that saw the beginning of preventative measures like as social isolation, travel limitations, and instructions on how to properly wash one's hands. However, it was anticipated that these preventative efforts would only serve to delay the spread of the virus. The scientific community was aware that in order to stop the pandemic, a vaccine would need to be created. The first COVID-19 human vaccine trials using the Moderna mRNA vaccine will commence on March 17, 2020. These trials will be conducted in the United States.

It was abundantly obvious that the first limits imposed were insufficient to halt the progression of COVID-19. In a short amount of time, limitations became more stringent in the majority of regions, with the United Kingdom enacting a stay-at-home regulation on the 26th of March. Around this

period, a number of European countries put in place their own versions of a national lockdown. As of the 2nd of April, the total number of COVID-19 cases across the globe had reached one million. This statistic shed light on the true gravity of the epidemic, and as a result, governments did all in their power to halt the progression of the disease until a vaccine could be developed that was deemed safe for human consumption. As further research came to show the significance of aerosols in the spread of the disease, the World Health Organization (WHO) announced guidelines on the 6th of April regarding the wearing of masks.

1.4. Covid-19 in Uttar Pradesh

The state government of Uttar Pradesh has begun conducting house-to-house active case finding of COVID-19 in rural areas in order to contain the disease's spread (Nguyen et al., 2021). This will be accomplished through the testing of people who are exhibiting symptoms in order to facilitate rapid isolation, disease management, and contact tracing.

This operation, which began on May 5 in India's most populous state with a population of 230 million people, is taking place over the course of five days, during which time government teams are travelling to 97,941 villages located within 75 districts (Khanna et al., 2020).

Using Rapid Antigen Test (RAT) kits, the two members of each monitoring team travel to the houses of people living in hamlets and villages located in distant areas in order to test anyone who exhibits signs of COVID-19. Those who have a positive test result are swiftly isolated and given a medication kit along with instructions on how to treat the condition. All of the contacts of those individuals who have a positive test result are isolated and put through an RT-PCR test in their own homes by a quick response team.

By the end of May 2020, almost 400,000 migrant workers had returned to the state on buses and trains operated by the state government. The government made direct bank transfers to daily wage labourers. Furthermore, the Mahatma Gandhi National Rural Employment Guarantee Act was augmented through further transfers so that rural households could gain employment and wages. Later in the year, the state government transported at public expense students from UP stranded in other states, back to their homes. The World Health Organization praised the State’s ‘exemplary’ efforts at COVID management.

Uttar Pradesh is the largest state in the country in terms of population and hence, the battle against COVID-19 becomes more challenging. The UP government has been working hard to turn every challenge into an opportunity, responding quickly and ensuring that the best strategies are in place. The state's population equals that of Indonesia (one of the most densely populated nations) but the number of coronavirus positive cases in Indonesia is 8 times that in Uttar Pradesh. Therefore, we can say that the government's response and the measures taken to control this pandemic have been successful so far.

In addition to the usual sample collection and testing that is taking place in community health centres, the state has sent two mobile testing vans to each Block within a District so that people who are exhibiting symptoms can be examined.

For the purpose of carrying out this task, the state government has committed 141,610 teams and 21,242 supervisors from the state health department. This is being done to guarantee that all rural regions would be reached.

WHO provided assistance to the government of Uttar Pradesh in terms of training and microplanning for the activity? As a result, WHO now has field officers stationed on the ground to monitor the situation and provide real-time feedback to the government so that it can take immediate steps to improve the quality? On the first day of the event, WHO field officers visited at least 10,000 homes and observed over 2,000 government teams (Khanna et al., 2020). The World Health Organization would also lend assistance to the government of Uttar Pradesh in the process of compiling the final reports.

Those who exhibit symptoms are subjected to testing and are provided with medication kits as well as advice on how to properly quarantine and isolate themselves, both at home and at medical facilities. People who do not exhibit symptoms of COVID-19 are strongly encouraged to get vaccinated and to engage in behaviours that are acceptable for COVID in order to limit the spread of the virus in rural areas of India's most populous state.

2. Review of Literature-

- **Al-Quteimat& Amer (2020)** concluded that serious consequences have been documented to occur in 33% of individuals who have COVID-19. These complications include septic shock,

acute respiratory distress syndrome, acute renal failure, acute respiratory damage, and severe pneumonia. At this time, there is neither a particular treatment nor an approved vaccine for COVID-19; nevertheless, a large number of clinical trials are presently investigating potential drugs that could be used to treat COVID-19. When compared to people without cancer, those who have cancer and an immunosuppressed status (whether as a result of the disease or the therapy) are at a greater risk of contracting an infection than the general population. This brief review will concentrate on the effects that COVID-19 has on a cancer patient and will explore the many management choices and recommendations that are now accessible. It will also highlight the clinical guidelines and resources that are currently in existence.

- **Buss (2022)** findings indicated that the COVID-19 epidemic did, in fact, have an effect on the academic performance, mental health, and/or financial situation of USD students. In addition, a significant number of students share the opinion that the USD might have done more to better address the requirements of the students.
- **Ciotti et al. (2020)** concluded that the impact of the COVID-19 epidemic on our way of life, available medications to combat COVID-19, the development of vaccines, the role of artificial intelligence in managing the pandemic and restricting the spread of the virus, and preparing for a potential second wave.
- **Daniel (2020)** concluded that reassuring both the children and their parents was an essential component of the institutional response. Asynchronous learning, which functions most effectively in digital media, should be utilised by educational institutions in order to increase their potential to instruct students remotely. Teaching should include, in addition to the typical topics covered in the classroom, a wide variety of projects and activities that places COVID-19 in a historical and international setting. When developing educational programmes, it is helpful for teachers to begin by planning out how students will be assessed. Finally, this Viewpoint provides a list of resources as well as adaptable methods that can be used once the epidemic is over to restore the damage that was done to the kids' learning paths.
- **Dashraath et al. (2020)** reviewed of COVID-19 in pregnancy, with the goal of bringing together the various factors that are essential to the comprehension of pathophysiology and

susceptibility, diagnostic challenges with real-time reverse transcription polymerase chain reaction (RT-PCR) assays, therapeutic controversies, intrauterine transmission, and maternalfetal complications. In this article, we explore the most recent developments in antiviral medicine and vaccine research, including the unconventional application of chloroquine for the treatment of COVID-19. Fetal surveillance is handled, taking into account the susceptibility to growth restriction as well as unique factors to be taken into account during labour and delivery. In addition, we place a strong emphasis on the safety of obstetric care workers who work directly with patients while we maintain our commitment to offering vital services. Our clinical service model is constructed around the principles of workplace segregation, appropriate social distancing, containment of cross-infection to healthcare providers, judicious use of personal protective equipment, and telemedicine. Telemedicine is also a fundamental component of our strategy. Our objective is to disseminate a strategy that tertiary maternity facilities can use to manage pregnant women in the midst of a pandemic, all the while keeping the safety of both the patient and the healthcare professional as the framework's primary focus.

- **Ghosh et al. (2020)** determined that the COVID-19 disease is causing a significant amount of misery in India, which has the second-largest population in the world. By the 18th of May, India has investigated one lakh (0.1 million) COVID-19 infected cases, and as of the 11th of July, the number of cases had reached eight lakhs. In India, social segregation and lockdown regulations were implemented, which had the unintended consequence of having a secondary influence on the country's economy, standard of living, and natural environment. When it came to the economy and human life, there was a negative influence seen; nevertheless, there was a good impact on the environment. It has been explained in this article how India dealt with, and could potentially deal with in the future, these three variables during and after the COVID-19 scenario.
- **Hinojosa et al. (2020)** discovered that crises such as COVID-19 provide a threat to the attachment security that is present in relationships between leaders and followers. When it comes to understanding how leaders might foster positive interactions with followers during times of crisis when physical contact is not possible, we find that research on adult attachment in reaction to traumatic events and times of crisis is significant.

- **Khanna et al. (2020)** determined that the most effective tactics to stop the disease spreading were restricted measures such as social distancing, lockdown, case detection, isolation, contact tracing, and quarantine of exposed individuals. The readers will benefit from this review by gaining a better understanding of the various responses taken by different nations and the results of those responses. India's response to the pandemic was fashioned in accordance with the lessons learned from the experiences of these other countries. How successfully India has dealt with the pandemic is something that only time can reveal. In addition, we make recommendations for the future courses of action that the international community ought to follow in order to control and alleviate the emergency.
- **Kumar et al. (2021)** said that the results indicated that reduced roadside dust re-suspension, restrictions on vehicle movement, and restrictions on building and demolition activities are the main causes of the improvement in air quality (in terms of particulate matter). The average summer temperature has significantly dropped, and it is plausible to link this to lower radiative forcing brought on by a decrease in the amount of pollutants in the atmosphere.
- **Lone & Ahmad (2020)** stated that the ongoing COVID-19 outbreak is expected to have a substantial impact on Africa, which has the most susceptible populations to infectious diseases. As a result, we gathered and summarised the literature that is currently available on the epidemiology, aetiology, vulnerability, preparedness, and economic impact of COVID-19 in Africa in this review. This information may be useful and necessary for understanding ongoing COVID-19 pandemics on the continent. We also provided a succinct summary of how the COVID-19 epidemic and global warming are related.
- **Maurya et al. (2022)** concluded that F-HCWs demonstrated suitable general knowledge, a positive outlook, and the adoption of the necessary behaviour. Higher educated F-HCWs and those with more years of experience working in healthcare facilities had better KAPs for COVID-19. Numerous HCWs, particularly technicians and students, were found to lack the necessary understanding for COVID-19.
- **Nguyen et al. (2021)** With the exception of home visits and take-home food (30%), service provision decreased significantly during lockdown in comparison to prepandemic (83-98

percentage points, pp). In July 2020, the majority of FLWs (68%-90%) resumed service delivery, with the exception of immunisation and hot prepared meals (10%). Similar disruption and restoration patterns were revealed by administrative data. Service delivery was hampered by FLW concerns, an increase in workload, inadequate personal protective equipment (PPE), and a labour shortage. Delivering services to beneficiaries' homes (between 40% and 90%), social estrangement (between 80%), and the use of PPE (between 40% and 50%) and telephones for communication (between 20% and 40%) were the main changes made to provide services. During the lockdown, demand for services significantly decreased (by 40 to 80 percentage points), although about half of the moms still received home visits and food supplements. With the difficulties of restricted travel (30%), lack of services (26%), and concern over contracting the virus when leaving the house (22%) or meeting service providers (14%), utilisation for the majority of services did not improve following the lockdown.

- **Padhan&Prabheesh (2021)** explored the impacts of the pandemic were investigated, and viable policy initiatives to lessen the severity of those effects were suggested. According to the findings of our survey, in addition to deaths, detrimental consequences on the economy have been identified as a direct result of the COVID-19 pandemic. In addition, the results of the poll point to the necessity of increased coordination on both the national and international levels. This study comes to a conclusion by recommending coordination of monetary, macroprudential, and fiscal policy (the "trio") in order to mitigate the negative effects that COVID-19 has on the economy. In conclusion, this study investigates various avenues that could be pursued in further research.
- **Pfefferbaum& North (2020)** concluded that the Covid-19 pandemic has worrying repercussions for both individual and collective health as well as emotional and social functioning was reached. In addition to providing medical care, providers of health care who are already stretched thin have an important role to play in monitoring patients' psychosocial needs and providing psychosocial support to their patients, other providers of health care, and the general public. These are activities that should be incorporated into general pandemic health care.

- **Phelps & Sperry (2020)** said that the result of the direct response to the COVID-19 outbreak, numerous different school districts have decided to close their schools for the duration of the current school year. It is regrettable that many schools have had to close since for many students, schools are the only place where they can receive trauma-informed care and assistance. When schools reopen, they are required to prepare an all-encompassing strategy to meet the potential mental health needs of their pupils and students.
- **P. Kumar et al. (2021)**concluded that the partial closure of rural markets and procurement choices, along with an insufficient supply of products, resulted in shortages of food supplies and substantially increased costs, which mainly impacted urban people and the less fortunate members of society. We argue that the lessons learned from the COVID-19 crisis could fuel the development of new sustainable agro-policies and decision-making in response not only to future pandemics but also to the sustainable development of agricultural systems in India and in developing countries in general. This is because the lessons learned from the COVID-19 crisis could fuel the development of new sustainable agro-policies and decision-making in response to future pandemics.
- **Pranggono&Arabo (2020)** investigated the problems with cyber security that have arisen during the corona virus (COVID-19) outbreak. Cybercriminals and Advanced Persistent Threat (APT) organisations have profited from the pandemic by focusing on weak individuals and systems. The correlation between the epidemic and the rise in cyber attacks targeting weak sectors is emphasised in this research. Additionally, the pandemic-related rise in worry and panic is raising the success rate of cyber attacks. We also draw attention to the fact that during the epidemic, healthcare companies have been one of the primary targets of cyber attacks. In light of the new norm of expecting employees to work from home (WFH), the potential for state-sponsored attacks, and the rise of phishing and ransomware, the pandemic has also brought up the topic of cyber security. While WFH has also included mitigation of security risks associated to healthcare, we have also presented a number of practical techniques to lower the risks of cyber attacks. Healthcare firms must adopt a thorough strategy to cyber security in order to better protect their valuable data and assets.

- **Tarkar (2020)** discovered that there are deviations from the typical day-to-day activities. Countries are employing a wide variety of strategies in an effort to halt the spread of COVID-19. The government of India has ordered a lockdown throughout the entire nation in an effort to further social estrangement. Because of the pandemic, it has been decided that all schools, including colleges and universities, will be closed. This causes problems throughout the entire educational system. When it comes to making decisions regarding the education system, policymakers are up against a number of obstacles. The teaching process is moving from in-person to virtual environments. Students, instructors, and parents are all encountering many challenges as a consequence of the shift in pedagogical practises that have taken place. In the next paper, we will discuss the several repercussions that COVID-19 has had on the educational system.
- **Wang et al. (2020)** concluded that throughout the pandemic time, a significant demand for and high acceptability of COVID-19 immunisation has been shown among the Chinese people, despite the fact that worries regarding the safety of the vaccine may limit the promotion of vaccine uptake. Immunization programmes should be designed to remove barriers in terms of vaccine price and vaccination convenience in order to increase vaccination coverage. Furthermore, health education and communication from authoritative sources are important ways to alleviate public concerns about the safety of vaccines.
- **Woolliscroft (2020)** found that the disruption in educational and clinical care systems is being sparked by the COVID-19 virus to a degree and at a pace that was unthinkable just a few weeks ago. Who among us believed a pandemic was a likely scenario in the near future, despite the chance that abstract tabletop exercises and apocalyptic works predicted our current reality? Uncommonly adopted innovations that have been around for years or decades have all of a sudden become the norm. But the COVID-19 epidemic has also made the U.S. clinical care system's flaws clear and underlined the demand for more innovation. In this invited commentary, I quickly discuss a few instances of creative problem-solving, the directionality of necessary future innovations, and their immediate and long-term effects on academic institutions, faculty, and educational initiatives.

3. Gaps

The Covid-19 issue is distinct from other crises in that it calls for significant adjustments to be made in a relatively short period of time. Unpredictability and incapacity on the part of businesses to anticipate and avert potential threats are both characteristics of the scenario. This level of hazard necessitates prompt reaction (Gostin& Wiley, 2020).

- The majority of the research on the covid-19 pandemic focused on the pandemic in a general sense or on specific criteria such as health care, education, and tourism; however, the researcher was unable to discover any studies that took management of covid-19 into account. In addition, the researchers were not successful in locating any studies that consider tourism, healthcare workers, and migration collectively.
- The majority of the studies that were discovered came from a variety of countries and areas; however the researchers were unable to uncover many studies from Uttar Pradesh, and more especially from the Agra district. There were not many researches that focused on migration in general, but even fewer studies that were related to government initiatives were uncovered. In addition, the researcher in Uttar Pradesh was unable to uncover any management of covid-19.

4. Need of the Study:-

The global economy is being put to the test by Covid-19. There have been a significant number of lockdowns implemented in a number of nations around the world, and the governments of these nations are struggling to contain the spread of Covid-19. A great number of people have been forced to give up their occupations as a result of companies going out of business either temporarily or permanently, or because they were required to do so in order to protect their health (Michie, 2020). This also contributes to the fact that the unemployment rate in the year 2020 will be significantly greater than it has been in recent years. Researchers from developing economies expect that it will take longer for Australia, Sweden, and the United States to return to growth than it will for Britain, Spain, and France (Hinojosa et al. 2020). According to the scorecard compiled by Oxford Economics, the following advanced economies have the ten worst ratings: European economies (The Economist, 2020).

Due to this reason, further research is required; management of government during Covid-19 in Uttar Pradesh has become an important aspect of the overall process of managing Covid 19 crises.

Because of the singular nature of COVID-19. It is important to do further investigation into the results of management of government in Uttar Pradesh and in Agra district.

5. Research Questions

- Is there any proper pandemic policy in the country?
- Do we have a Separate Specialized body for pandemic management?
- Is there any Standard Operating Procedure (SOP) for pandemic management?
- Do we a regular mock drily for keeping update the pandemic managing team?
- What are the measure have been taken during COVID-19 to manage reverse migration by Government of Uttar Pradesh?
- What are the role of knowledge, attitude and practice (KAP) of frontline workers to mange COVID-19 pandemic?
- Could one say management of Covid-19 efficient and effective in Uttar Pradesh?

6. Objectives

- To study the pandemic management policies and practices adopted time to time.
- To study the COVID-19 policies and measures of government of India.
- To study policies and practices adopted by UP government to manage COVID-19.

  (In this objective the management of COVID-19 includes: Reverse Migration, Free Distribution of Food, Law & Order, Epic Centre and Health Facilities)
- To assess the impact of knowledge, attitude and practices (KAP) of frontline workers on management of COVID-19.
- To propose the strategic framework for effective management for pandemic in future.

7. Research Design & Methodology

7.1. Material and Method

To accomplish the research purpose, a descriptive research design will be used in this study. This study is a qualitative type of study which is based on primary and secondary data collection. The findings will show that how Covid-19 was management and it had impact on tourism and the initiatives taken by the government in Uttar Pradesh.

7.2. Scope: The area of the study is UP.

7.3. Duration-The duration of the study is from March2020 –March 2022

7.4. Sample Area- The sample of the study is Agra District that selected on the basis of Purposive & convenience sampling Agra District.

8. Sample Size: The population from which sample needs to be drawn is finite. Therefore, the sample size has been calculated using the sample size formula for the finite population through precision rate and confidence level approach to arrive at a representative number of respondents (Godden, 2004).

$$ss = P \mp Z\, X \sqrt{\frac{P(1-p\ \ )}{n'}} X \frac{N-n')}{N-1} \qquad \text{……(Equation 1)}$$

Where:

Z is z score

P is the population proportion

n'is sample size

N is the population size

To minimize the bias and obtain a realistic sample size, three scenarios are evaluated-

- Scenario I Estimating 10% of population with 6% Margin of Error
- Scenario II Estimating 30% of population with 5% Margin of Error
- Scenario III Estimating 50% of population with 4% Margin of Error

8.1. Sample Frame

Sampling frame can be defined as a list of elements from which a sample may be drawn.The sample units for the proposed study shall comprise Frontline Workers and Officers of Agra district. A structured questionnaire will be circulated to the respondents for data collection. The target population is Frontline Workers and Officers of Agra district. Following table shows the total numberof Frontline Workers and Officers of Agra district engaged in management of COVID-19.

Table 1: Sample Frame

Epic Centre	Teams	Members In Each Team	Total Frontline Workers	Officers	Total
1	149	10	1490	Nodal Officer	25
2	95	10	950	Assistant Nodal Officer	8

3	189	10	1890	Team Supervisor	466
4	33	10	330		
Total	466	10	4660	**Total**	499
				4660+499	
				Total	5159

(**Source:** Agra District Authority Data under@Team-Agra, April'2020)

Based on the sample size determination, the number of respondents to be taken from each category of frontline workers and officers is computed based on the percentage proportion method. Following table shows the calculation of the number of frontline workers and officers from Agra district.

Table 2: Calculation of Sample Size

Scenario	Population Proportion	Value of Z (95% confidence level)	Margin of Error	Sample size Calculation	Sample Size
1	10%	1.96	6%	$= \frac{1.96^2 0.1(1-0.1)}{0.06^2}$	95
2	30%	1.96	5%	$= \frac{1.96^2 0.3(1-0.3)}{0.05^2}$	304
3	50%	1.96	4%	$= \frac{1.96^2 0.5(1-0.5)}{0.04^2}$	538
Total	466			Total	937
				Average	937/3= 312
				Total sample size	320 approx.

(Source: Computed by means of using Godden formula (Equation -1))

Therefore, the sample size for the study will be 320.

Table 3: Sample Composition

S.No.	COVID -19 Frontline Workers/ Officers in Agra District	Number of Workers/ Officers to be Selected	
1	Nodal Officers/Assistant Nodal Officers	(33/5159)*320	3
2	Team Supervisors	(466/5159)*320	29
3	Frontline Workers	(4660/5159)*320	289
		Sample Size	**320**

(Source: Computation based on percentage proportion method)

9. Sampling Technique

The Researcher shall use the Purposive sampling followed by Judgemental sampling to select the respondent for the proposed study. The Researcher shall use the standard research questionnaire adopted from the researcher questionnaire used in select previous study in reference to the objectives & Hypothesises of this proposed study.

10. Conceptual Framework and Hypotheses

The proposed conceptual framework is evolved after an exhaustive literature review and the variables

have been selected accordingly. This proposed conceptual framework represents the impact of knowledge, attitude and practices on management of COVID-19. The proposed study will be caried out in order to test the following hypotheses. the hypotheses for the present study are framed on the basis of previous studies and relevant literature.

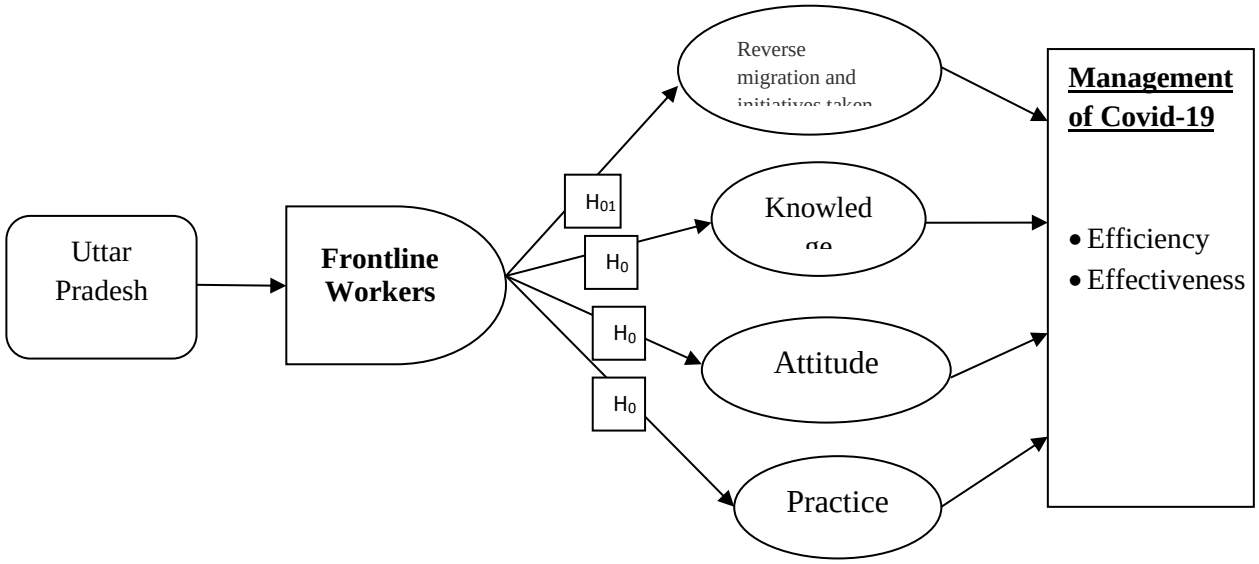

Figure 1: Conceptual Framework

11. Hypotheses

H_{01}: There is no significant effect of reverse migration on COVID-19 management.

H_{a1}: There is significant effect of reverse migration on COVID-19 management.

H_{02}: There is no significant effect of knowledge of frontline workers on COVID-19 management.

H_{a2}: There is significant effect of knowledge of frontline workers on COVID-19 management.

H_{03}: There is no significant effect of attitude of frontline workers on COVID-19 management.

H_{a3}: There is significant effect of attitude of frontline workers on COVID-19 management.

H_{04}: There is no significant effect of practices of frontline workers on COVID-19 management.

H_{a4}: There is significant effect of practices of frontline workers on COVID-19 management.

11.1. Data collection: The study will be based on primary and secondary data collection

Primary Data: Primary data will be collected from 320 front line workers will be taken. The data will be collected with help of structured questionnaire and personal interview.

Secondary Data: Secondary data which will be collected from various sources like government

official sites (up.gov.in, upnrhm.gov.in) and other official sites. Further data will be collected with the help of different journals, articles and reports.

Methodology and tools : The statistical tools that will be applied for the study are descriptive statistics, t test, efficiency score and further as per the need of the study tools will be used.

12. Social Impact of Research Work

Everyone was caught off guard by the pandemic, and before we realised it, we've already spent almost two years coping with the aftermath of it. We are now aware that Covid-19 is continuing to mutate even as the world is being driven into isolation in order to prevent the further spread of infection and to receive vaccinations. It is becoming increasingly difficult to keep up with the constant influx of information, whether it relates to the health of individuals, scientific discoveries, or cautions issued by governments and organisations. The government is making every effort to stop the spread of the virus and is taking all of the necessary precautions.

This research will aid the government better analyze the current situation, and it will also help the general public better comprehend the management of covid-19, as well as its impact on tourism, frontline healthcare personnel, and migratory populations.

13. Expected outcomes

- This study help the people to know about the fund allocated for Uttar Pradesh and Agra during Covid-19.
- This study will help to understand about the reverse migration amid COVID-19 and the initiatives taken by the Government of Uttar Pradesh.
- Study will show the impact of Covid-19 on tourism industry in Uttar Pradesh.
- This study will help the government to know about the knowledge, attitude and practice (KAP) regarding the COVID-19 pandemic among the frontline healthcare workers
- This study will help people, government and officials about the efficiency of management of Covid-19.

CHAPTER PLAN

Proposed Chapterization

The structure of the proposed study will be as follows:

Chapter 1: Introduction

Chapter 2: Review of Literature

Chapter 3: Research Methodology

Chapter 4: Analysis and Results

Chapter 5: Conclusions and Suggestions

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